What is claimed is:

1. A modified, mesophase pitch-based carbon fiber comprising from about 0.01 percent to about 1.0 percent by weight of carbon nanomaterial reinforcements.

2. The modified carbon fiber set forth in claim 1 comprising from about 0.1 percent to about 0.5 percent by weight of carbon nanomaterial reinforcements.

3. The modified carbon fiber set forth in claim 1 wherein the carbon nanomaterial reinforcements comprise carbon nanotubes.

4. The modified carbon fiber set forth in claim 3 wherein the carbon nanotubes comprise multi-wall carbon nanotubes.

5. The modified carbon fiber set forth in claim 1 comprising decreased tensile modulus.

6. A method for making a modified, mesophase pitch-based carbon fiber comprising the steps of:
   a. providing an anisotropic mesophase pitch;
   b. heating the pitch to at least the softening temperature of the pitch;
   c. dispersing carbon nanomaterials in the heated pitch in an amount ranging from about 0.01 percent to about 1.0 percent by weight;

d. heating the pitch to an extrusion temperature of about 20° to about 30°C above the softening point;

e. melt spinning a carbon nanomaterial-reinforced pitch fiber;

f. thermosetting the spun fiber; and

g. pyrolyzing the carbon nanomaterial-reinforced pitch fiber to form a carbon nanomaterial-reinforced pitch-based carbon fiber .

7. The method set forth in claim 6 comprising dispersing carbon nanomaterials in the heated pitch in an amount ranging from about 0.1 percent to about 0.5 percent by weight.

8. The method set forth in claim 6 wherein the carbon nanomaterials comprise carbon nanotubes.

9. The method set forth in claim 8 wherein the carbon nanotubes comprise multi-wall carbon nanotubes.